

REMARKS

The present application has been reviewed in light of the Office Action dated March 25, 2009. Claims 1-4 and 6-16 are presented for examination, of which Claims 1, 2, and 10-15 are in independent form. Claims 1-3 and 7-15 have been amended to define aspects of Applicants' invention more clearly. Favorable consideration is respectfully requested.

An Information Disclosure Statement and a corresponding PTO-1449 form were submitted on September 30, 2008, as evidenced by information available from the USPTO PAIR System. Applicants respectfully request the Examiner to return an initialed copy of the PTO-1449 form, indicating that the references listed thereon have been considered and made of record in the present application.

The Office Action states that Claim 10 is objected to because of informalities. In response, Claim 10 has been amended to change the phrase "execute a wireless establishment process with wireless communication unit" to "execute a wireless establishment process with the wireless communication device." It is believed that the objection to Claim 10 has been remedied, and its withdrawal is therefore respectfully requested.

The Office Action states that Claims 1-3, 6-9, 11-13, 15, and 16 are rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Application Publication No. 2004/0102192 (*Serceki*); that Claims 10 and 14 are rejected under 35 U.S.C. 102(a) as being anticipated by a document entitled "The Windows XP Wireless Zero Configuration Service" (*Zero*); and that Claim 4 is rejected under 35 U.S.C. § 103(a) as being unpatentable over *Serceki* in view of U.S. Patent No. 6,529,522 (*Ito et al.*). For at least the following reasons, Applicants submit that independent Claims 1, 2, and 10-15, together with the claims dependent therefrom, are patentably distinct from the cited prior art.

The aspect of the present invention set forth in Claim 1 is directed to a wireless communication system that includes first and second wireless communication devices. The first wireless communication device includes a detection unit, a connection unit, a first transmission unit, a determination unit, a display unit, and a control unit. The detection unit detects a plurality of beacons at a plurality of frequencies. The connection unit connects to a network identified by network identification information included in a beacon detected by the detection unit. To search for a wireless communication device having the predetermined data processing function specified by the operator, the first transmission unit transmits a search request signal to the wireless device on the network connected to by the connection unit. The determination unit determines whether the wireless communication device on the network connected to by the connection unit has the predetermined data processing function on the basis of a response signal that the wireless communication device on the network connected to by the connection unit has transmitted in response to the search request signal transmitted by the first transmission unit. The display unit selectably displays information associated with the wireless communication device determined by the determination unit to have the predetermined data processing function specified by the operator so as to determine a wireless communication partner. When the operator selects the information displayed by the display unit, while the detection unit detects the beacon, the control unit terminates a detection process of the detection unit and executes connection processing with a wireless communication device specified by the selected information.

The second wireless communication device includes a second transmission unit that transmits a signal including self-identification information as the response signal, when

search request information is detected in a wireless reception waiting state at a predetermined frequency.

Notable features of Claim 1 include the first transmission unit, the determination unit, and the display unit. By virtue of these features, the operator of the first wireless communication device is able to search for a partner wireless communication device having a printing function, for example.¹

Serceki is understood to relate to a software tool that runs on a computer with wireless communication capabilities (*see* paragraph 4). The software tool detects a presence of wireless networks and displays related information on the computer (*see* paragraph 4). *Serceki* discusses that a Graphical User Interface (GUI) 126 includes a graphical representation 128 of communication activity on various channels of 802.11b networks and a connection information status area 145 displaying various channels identified in the graphical representation 128 (*see* paragraph 26). *Serceki* also discusses that active scanning may be employed, wherein a probe request in accordance with the 802.11 standard is transmitted on each of a plurality of channels (*see* paragraph 32). An Access Point (AP) responds to the probe request with a probe response that contains the AP's Media Access Control (MAC) address and network identifier information (*see* paragraph 32). If no probe response is received within a predetermined period of time, it is determined that no AP is available on that channel (*see* paragraph 32).

As best understood by Applicants, the software tool does not enable an operator thereof to specify a predetermined data processing function and to search for a communication device having the predetermined data processing function specified by the operator. Moreover, the computer running the software tool is not understood to be connected to an AP when a probe

¹ Any examples presented herein are intended for illustrative purposes and are not to be construed to limit the scope of the claims

request is sent to that AP. Instead, the computer is understood merely to tune to a channel, transmit the probe request, await a response, tune to a next channel, and repeat this process for each channel.

In summary, nothing has been found in *Serceki* that is believed to teach or suggest a wireless communication device that includes a “first transmission unit adapted to transmit a search request signal, to search for the wireless communication device having the predetermined data processing function *specified by the operator, to a wireless device on the network connected to by said connection unit,*” a “determination unit adapted to determine whether the wireless communication device on the network connected to by said connection unit has the predetermined data processing function *specified by the operator* on the basis of a response signal that the wireless communication device on the network connected to by said connection unit has transmitted in response to the search request signal transmitted by said first transmission unit,” and a “display unit adapted to selectably display information associated with the wireless communication device determined by said determination unit to have the predetermined data processing function *specified by the operator* so as to determine a wireless communication partner,” as recited in Claim 1.

Accordingly, Applicants submit that Claim 1 is not anticipated by *Serceki*, and respectfully request withdrawal of the rejection under 35 U.S.C. § 102(e). Independent Claims 2 and 13 include features similar to those of Claim 1 discussed above. Therefore, Claims 2 and 13 also are believed to be patentable for at least the reasons discussed above.

The aspect of the present invention set forth in Claim 10 is directed to a wireless communication device that is configured to switch between a history search mode and a new search mode, and that executes a communication process in each mode. In the history search

mode, the wireless communication device communicates with a partner wireless communication device that had been communicated with previously. In the new search mode, the wireless communication device communicates with a newly searched for partner wireless communication device.

The wireless communication device includes a storage unit, an instruction unit, a beacon detection unit, a search unit, a first display unit, a second display unit, and a wireless communication establishment process unit. The storage unit stores device identification information and network identification information of a partner to which the wireless communication device has been connected previously. The instruction unit instructs one of the history search mode and the new search mode.

The beacon detection unit operates in the new search mode and detects a beacon. In the history search mode, the search unit compares network identification information included in the detected beacon with the network identification information stored in the storage unit. If there is a match in the compared network identification information, the search unit causes the detection unit to detect another beacon. If new network identification information is detected, the search unit searches for a partner wireless communication device to communicate with based on the new network identification information.

In the new search mode, the first display unit selectably displays device identification information of a wireless communication device found by the search unit. In response to the instruction unit instructing the history search mode, the second display unit selectably displays the device identification information of a wireless communication device stored in the storage unit. When device identification information displayed by one of the first and second display units is selected, the wireless communication establishment process unit

executes a wireless communication establishment process with the wireless communication device specified by the selected device identification information.

Because the wireless communication device of Claim 10 is configured to switch between the history search mode and the new search, the wireless communication device of Claim 10 is able to operate in both the history search mode and the new search mode. Notable features of Claim 10 are the search unit and the first display unit. By virtue of these features, an operator of the wireless communication device is able to select from a list that includes only new partner devices that have not previously connected to the wireless communication device, for example.

Zero is understood to relate to a “Wireless Zero Configuration Service” for a computer running the Windows XP operating system (*see* Title). *Zero* discusses that scanning can be performed to detect wireless networks, that information identifying detected wireless networks can be displayed, and that scanning can be performed again if a user presses a “Refresh” button. *Zero* also discusses that a priority wireless network field can be set for each wireless network that has been joined previously, and that attempts to join preferred wireless networks can be performed automatically based on the information included in the priority wireless network fields (*see* pages 1-2). Apparently, the Wireless Zero Configuration Service causes a most preferred wireless network that is within range to be joined automatically and, if a preferred wireless network is not within range, a user must select a detected wireless network to join it. The “Wireless Network Connection Properties” window shown on page 2 includes an “Available networks” portion and a “Preferred networks,” both of which include a “CorpNet” wireless network identifier (*see* page 2). Because the “Available networks” portion includes device identification information of a wireless communication device that has previously

connected to the computer, the Wireless Zero Configuration Service is not understood to perform the functions of the claimed search unit and first display unit. That is, there is no display area that lists only information regarding devices to which the computer has not connected previously.

In summary, nothing has been found in *Zero* that is believed to teach or suggest a wireless communication device that can switch between a history search mode and a new search mode, and executes a communication process in each mode, wherein, in the history search mode, the wireless communication device communicates with a partner wireless communication device that had been communicated with previously, and wherein, in the new search mode, the wireless communication device communicates with a newly searched for partner wireless communication device that includes a “search unit adapted to, in the history search mode, compare network identification information included in the detected beacon with the network identification information stored in said storage unit, cause said detection unit to detect another beacon, if there is a match in the compared network identification information, and search for a partner wireless communication device to communicate with based on new network identification information, if the new network identification information is detected,” and “a first display unit adapted to, in the new search mode, selectively display device identification information of a wireless communication device found by said search unit,” as recited in Claim 10.

Accordingly, Applicants submit that Claim 10 is not anticipated by *Zero*, and respectfully request withdrawal of the rejection under 35 U.S.C. § 102(a). Independent Claim 14 includes features similar to those of Claim 10 discussed above. Therefore, Claim 14 also is believed to be patentable for at least the reasons discussed above.

The aspect of the present invention set forth in Claim 11 is directed to a wireless communication system that includes first and second wireless communication devices. The first wireless communication device includes a discrimination unit, a determination unit, and a display unit. The discrimination unit discriminates a type of device capable of executing a processing function designated by an operator. When receiving a beacon transmitted from a device on a wireless network, the determination unit determines whether device identification information corresponding to the type discriminated by the discrimination unit is included in the received beacon. The display unit selectably displays information associated with the device that transmitted the beacon, in accordance with a determination result determined by the determination unit.

The second wireless communication device has an informing unit that includes device identification information indicating a function into a beacon and transmits the beacon to the wireless network. When information of the second wireless communication device among information displayed by the display unit is selected, a process for establishing a communication between the first and second wireless communication devices is executed.

Notable features of Claim 11 include the discrimination unit, the determination unit, and the display unit. By virtue of these features, an operator of the first wireless communication device is able to designate a particular type of device capable of executing a processing function (e.g., a printer, a camera, a storage, a display, or a facsimile) before a wireless connection is established, and is able to select a partner device for establishing a wireless connection based on the type designated by the operator, for example.

Serceki discusses that a monitoring application scans through all possible channels, displays information indicative of an activity level on each channel, and permits a user

to select a channel having an access point with which to associate (*see* paragraph 11). A user can cause the monitoring application to scan all possible channels to determine whether any access points are operating on any of the channels (*see* paragraph 11). If the monitoring application detects a presence of an access point operating on a particular channel, the monitoring application determines a communication activity level associated with that access point and shows information on a display indicative of the activity level (*see* paragraph 11). The monitoring application can display a Signal-to-Noise Ratio (SNR) for each channel, which permits the user to determine which channels have operating access points and a relative signal strength associated with each access point (*see* paragraph 11).

Serceki also discusses that the computer running the monitoring application scans each channel either passively or actively (*see* paragraph 12). Passive scanning includes tuning a radio module to a channel frequency and waiting a predetermined period of time for a beacon frame from an access point (*see* paragraph 12). The beacon frame includes a MAC address of the access point and an identifier value that uniquely identifies the network to which the access point connects (*see* paragraph 12). In the context of an IEEE 802.11 network, the identifier value that uniquely identifies the network is referred to as a Service Set Identifier (SSID) (*see* paragraph 12).

As best understood by Applicants, an access point is the only type of device for which the monitoring application can search. That is, an operator of the monitoring application is not understood to be enabled to designate a type of device capable of executing a processing function. Further, because access points are the only type of device that generates a beacon, the monitoring application is not understood to determine whether the device that transmitted the beacon is an access point. Accordingly, when the computer running the monitoring application

receives the beacon, the monitoring application is not understood to determine whether device identification information received in a beacon corresponds to a particular type, much less determine whether the device identification information corresponds to a type designated by the operator. Moreover, the monitoring application is not understood to display information associated a device determined to be of the type designated by the operator.

In summary, nothing has been found in *Serceki* that is believed to teach or suggest a wireless communication device that includes a “discrimination unit adapted to discriminate a type of device capable of executing a processing function designated by an operator,” a “determination unit adapted to, when receiving a beacon transmitted from a device on a wireless network, determine whether device identification information corresponding to the type discriminated by said discrimination unit is included in the received beacon,” and a “display unit adapted to, selectably display information associated with the device that transmitted the beacon, in accordance with a determination result determined by said determination unit,” as recited in Claim 11.

Accordingly, Applicants submit that Claim 11 is not anticipated by *Serceki*, and respectfully request withdrawal of the rejection under 35 U.S.C. § 103(a). Independent Claims 12 and 15 include features similar to those of Claim 11 discussed above. Therefore, Claims 12 and 15 also are believed to be patentable over *Serceki* for at least the reasons discussed above.

Ito et al. is understood to relate to a system for causing plural devices corresponding to communication methods of different formats to be recognized as a single communication system (*see* col. 1, lines 7-14). Nothing has been found in *Ito et al.* that is believed to remedy the deficiencies of *Serceki* and *Zero* discussed above.

The other claims in the present application depend from Claim 2 and are submitted to be patentable for at least the same reasons. Because each dependent claim also is deemed to define an additional aspect of the invention, individual consideration of the patentability of each claim on its own merits is respectfully requested.

In view of the foregoing amendments and remarks, Applicants respectfully request favorable consideration and an early passage to issue of the present application.

No petition to extend the time for responding to the Office Action is deemed necessary for this Amendment. If, however, such a petition is required to make this Amendment timely filed, then this paper should be considered such a petition and the Commissioner is authorized to charge the requisite petition fee to Deposit Account 06-1205.

Applicants' undersigned attorney may be reached in our New York Office by telephone at (212) 218-2100. All correspondence should continue to be directed to our address listed below.

Respectfully submitted,

/Lock See Yu-Jahnes/
Lock See Yu-Jahnes
Attorney for Applicants
Registration No. 38,667

FITZPATRICK, CELLA, HARPER & SCINTO
30 Rockefeller Plaza
New York, New York 10112-3801
Facsimile: (212) 218-2200

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